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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,231	02/11/2004	Scot M. Graham	M4065.0388/P388-B	1009
24998	7590	06/14/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			LAM, DAVID	
2101 L STREET NW			ART UNIT	
WASHINGTON, DC 20037-1526			PAPER NUMBER	
			2818	

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

10/775,231

Applicant(s)

GRAHAM ET AL.

Examiner

David Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 74-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 74-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/11/04</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Respond to Preliminary Amendment***

1. This office action is in response to the preliminary amendment file on 2/11/04.
  - Claims 1-73 have been cancelled.
  - Claims 74-84 are newly added.
  - Claims 74-84 are pending in the application.

### ***Specification***

2. The disclosure is objected to because of the following informalities: Applicant should provide the patent number and issued date for the cross-reference related application. Appropriate correction is required.

### ***Claim Objections***

3. Claims 74, 77 are objected to because of the following informalities:
  - In claim 74, page 3, lines 13, 15, respectively, “a third section signal node”, and “a fourth global signal node” should be change to -- a section signal node --, and -- a global signal node --;
  - In claim 77, page 4, lines 2, 4, respectively, “disposed proximate a first side”, and “disposed proximate a second side” should be change to -- disposed proximate to a first side --, and -- disposed proximate to a second side --. Appropriate correction is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 74-81 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,717,873. Although the conflicting claims are not identical, they are not patentably distinct from each other because the elements recited in claims 74-84 of the present application are art recognized equivalent with claims 1-16 of U.S. Patent No. 6,717,873.

With regard to claims 74-81, the present application recited a memory comprising a plurality of logic gates and signal nodes, sense amplifier which is a mere broader version of a the memory device disclose in claims 1-16 of U.S. Patent No. 6,717,873. The purpose of the invention is to reduce imbalance margin between two side of the sense amplifier and increasing sensing speed within the semiconductor memory device.

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5. Claims 82-84 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Graham et al. (6,717,873) in view of Inaba et al. (5,610,868).

As per above discussion Graham et al. disclose the claimed invention as noted above but not explicitly claim wherein the sense amplifier comprising NSA node, PSA node and equalization node. However, Inaba et al. disclose a semiconductor comprising sense amplifier having NSA node, PSA node and equalization node (Figure 7). It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the sense amplifier of Graham et al. with the NSA node, PSA node and equalization node as taught by Inaba to reduce power consumption, high reliability and increase the operating speed of the semiconductor memory device.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Inaba et al. (5,610,868) disclose a semiconductor memory device comprising NSA and PSA and equalization node.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lam whose telephone number is (571) 272-1782. The examiner can normally be reached on 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

**D. Lam**

June 8, 2004

A handwritten signature in black ink, appearing to read 'D. Lam', with a stylized flourish at the end.

**DAVID LAM  
PRIMARY EXAMINER**